Please add the following new claims 19-41:

--19. The computer as claimed in claim 1 in which said cache is fully associative.

20. The computer as claimed in claim 1 in which said cache stores texels in cache lines.

21. The computer as claimed in claim 20 in which said texels in said cache lines are accessible in two dimensions.

22. The computer as claimed in claim 21 in which said texels are placed in said cache lines in a linear fashion in accordance with a logical arrangement of a texture map.

23. The computer as claimed in claim 22 in which said linear fashion follows a Z-pattern through said logical arrangement.

24. The computer as claimed in claim 23 in which a texel in a cache line is accessible using an address formed by interleaving individual bits of values of coordinates in two dimensions.

25. The computer as claimed in claim 1 in which said cache operates in a prefetch mode.

26. The computer as claimed in claim 25 in which said prefetch mode is based on a determination of whether texels required for a polygon can fit into said cache.

27. The computer as claimed in claim 26 in which said cache implements a replacement policy such that cache lines containing texels that are being used to compute texture values to describe a polygon cannot be overwritten until said polygon is complete.

28. The computer as claimed in claim 1 in which said cache operates in a demand mode.

29. The computer as claimed in claim 28 in which said cache implements a replacement policy that depends on whether texels have been used to generate texture values for a last scan line of pixels.

30. The computer as claimed in claim 1, further including a direct memory access engine that provides texels to said cache.

31. The method as claimed in claim 7 in which the step of caching includes the step of caching texels in a fully associative cache.

32. The method as claimed in claim 7 in which the step of caching includes the step of caching texels in cache lines of said cache.

33. The method as claimed in claim 32 in which the step of caching includes the step of caching texels in cache lines that are accessible in two dimensions.

34. The method as claimed in claim 33 in which the step of caching includes the step of caching texels in said cache lines in a linear fashion in accordance with a logical arrangement of a texture map.

35. The method as claimed in claim 34 in which the step of caching includes the step of caching texels in said cache lines in a linear fashion that follows a Z-pattern through said logical arrangement.

36. The method as claimed in claim 35 in which the step of caching includes the step of caching texels in said cache lines in a linear fashion such that said texels can